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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. This action is responsive to the following communication: Amendment filed 12/18/07.

This action is made final.

2. Claims 1-13, 15, 16, 18-21 are pending in the case. Claims 1, 2, 11 and 13-21 are independent claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1-13, 15, 16, 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toomey et al (Patent Number 6119147; hereinafter Toomey) in view of Boulanger et al (Patent No 6583808 B2; hereinafter Boulanger).**

As to claims 1 and 19, Toomey teaches:

A work space control apparatus for controlling activities conducted by objects in a work space as history (e.g., see Fig. 12, col. 5 lines 11-23 and col. 9 lines 55-67 through col. 10 lines 1-4), the apparatus comprising:

a detection device that detects an activity event conducted by each object in the work space (e.g., see Fig. 3 and col. 6 lines 37-45; note any actions or activities performed by the user such as entering the virtual meeting, interaction or discussion that are conducted by users are defined as events, see col. 2 lines 41-60 and Fig. 12);

an activity event control device that saves the activity event detected while relating the activity event detected to time for each object during which each object conducts the detected

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activity event (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65; note the events are saved along with its associated user, client's identification or user's identification and time, see col. 7, lines 24-30 and col. 8 lines 12-19); and

a display device that displays the saved activity event by displaying the respective object conducting the saved activity event or a display device that displays the plural saved activity events of one object by tracing other objects, which conducted the plural saved activity events of the one object, with reference to the plural saved activity events of the one object and by displaying the one object and the other objects, objects (e.g., see Figs. 9-11 and see col. 2 lines 12-23 and col. 8 lines 36-43);

Toomey further suggests that relating the detected activity event to time and place where each object conducts the detected activity event (e.g., note that the asynchronous meeting system uses a client-server architecture and note the events are saved along with its associated user, client's identification or user's identification and time, see col. 7, lines 24-30 and col. 8 lines 12-19; further note that in the client-server architecture, the client's IP address is identified during each event and that IP address identifies the client device where the user conduct the meeting activities). Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to realize that the participants participating in the virtual meeting are persons interacting with each other through the user interface (e.g., see col. 5 lines 33-55 and Fig. 2).

In addition, Boulanger teaches a method and system for stereo videoconferencing that provides a realistic immersive three-dimensional environment for participants wherein stereo pairs of video images of each participant are transmitted to each of the other participants (e.g., see col. 2 lines 6-20). Boulanger further teaches that the activity event is conducted by objects

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in a work space including at least one non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space (e.g., note that participant 102 is real person facing the video cameras 206, 208, 210, 212 as shown in Fig. 2 and col. 3 lines 18-32 and lines 59-67; and further note that the participants can be physically separated from each other; the physical space that all participants make up is non-simulated real space).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the feature of stereo videoconferencing as taught by Boulanger to the work space control apparatus as taught by Toomey to achieve the claimed invention. The motivation for the combination is to permit meeting participants to interact with each other in a realistic way, while avoiding the computationally intensive process of computing participant's images using 3D models (e.g., see Boulanger col. 2 lines 1-4).

As to claims 2, 11, 13, 15, 16, 18, 20 and 21, Toomey teaches:

A work space control apparatus for controlling activities conducted by objects in a work space as history (e.g., see Fig. 12, col. 5 lines 11-23 and col. 9 lines 55-67 through col. 10 lines 1-4), the apparatus comprising:

a detection device that detects an activity event conducted by each object in the work space (e.g., see Fig. 3 and col. 6 lines 37-45; note any actions or activities performed by the user such as entering the virtual meeting, interaction or discussion that are conducted by users are defined as events, see col. 2 lines 41-60 and Fig. 12);

an activity event control device that saves the detected activity event, which is conducted by each object, in association with each object and saves a link to another object that conducts the detected activity event together, in association with each object; (e.g., see Fig. 12 and col. 8 lines 36-67 through col. 9 lines 1-19; note the events are saved along with its

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associated user, client's identification or user's identification and time, see col. 7, lines 24-30 and col. 8 lines 12-19); and

a display device that specifies objects conducting the respective saved activity events, and displays a symbol representing each activity event and symbols representing each activity event and symbols representing the specified objects which conduct each activity event (e.g., see Figs. 9-11 and see col. 2 lines 12-23 and col. 8 lines 36-43; note avatars are used to represent objects that conducts activity events and prop such as notes or cartoon bubbles are used to represent activity events such as discussion, moving a prop around, see col. 7 lines 53-67, col. 2 lines 41-60).

Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to realize that the participants participating in the virtual meeting are persons interacting with each other through the user interface (e.g., see col. 5 lines 33-55 and Fig. 2).

Toomey does not expressly teach non-simulated real space and that the objects in the work space include a person in the at least one non-simulated real space. However, it would have been obvious to one skilled in the art at the time the invention was made to combine the teaching of Toomey and Boulanger to achieve the claimed invention for the same reasons as discussed with respect to claim 1 above.

As to claim 3, Boulanger further teaches actual body acquiring means for acquiring actual body information of the object of the activity according to the activity event saved by the activity event control means (e.g., cameras 206, 208, 210, 212 as shown in Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 4, Toomey further teaches wherein the activity event control means saves the detected activity event while the detected activity event can be referred from the other object for each object of the activity event being accompanied by the information of the activity time, and the activity event display means displays a plurality of the saved activity events in a time series (e.g., see Fig. 7, col. 6 lines 5-21 and lines 55-65, col. 2 lines 12-24).

As to claims 5 and 12, Boulanger further teaches wherein the activity event display means displays an activity event by displaying objects arranged in a positional relation based on the degree of relation between the objects (e.g., see Fig. 1 and col. 4 lines 27-38). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 6, Toomey further teaches a capture input means for capturing data of the activity conducted in the work space (e.g., see col. 6 lines 38-54), wherein the activity event control means controls the captured data corresponding to the activity event so as to supply captured data as a display output corresponding to the activity event (e.g., see Figs. 9-11). Boulanger further teaches a capture input means for photographing captured data of the activity conducted in the work space (e.g., see Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 7, Toomey further teaches wherein the detection device detects a change in a set of the user objects in the activity event, and the activity event control device saves an activity as a different activity event each time the change is detected (e.g., see col. 6 lines 17-21, col. 6 lines 44-48).

As to claim 8, Boulanger further teaches wherein the detection means detects a change in a set of the user objects in the activity event, and the activity event control means saves an activity as a different activity event each time the change is detected (e.g., see Fig. 2). Thus, combining Toomey and Boulanger would meet the claimed limitations for the same reasons as discussed with respect to claim 1 above.

As to claim 9, Toomey further teaches warning means for outputting a warning to a user when a predetermined state is detected by the detection means (e.g., see col. 15 lines 35-41).

As to claim 10, Toomey further teaches wherein the object includes a document used in the work space (e.g., see col. 5 lines 25-30 and Figs. 1, 2).

Response to Arguments

5. Applicant's arguments filed on 12/18/2007 have been considered but are not persuasive.

♦ In response to Applicant's arguments that the prior art of Toomey fails to disclose or suggest relating the activity event detected to a place where each object conducts the detected activity event (e.g., see Applicant's remark page 11, Paragraph 1), the examiner notes this feature is well-addressed as set forth in claim 1 above.

♦ In response to Applicant's arguments that the combination of Toomey and Boulanger do not teach the limitation of an activity event control device that saves a link to another object that conducts the detected activity event together, in association with each object (e.g., see Applicant's remark page 11, Paragraphs 3, 4), the examiner respectfully disagrees and submits

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that the prior art of Toomey clearly suggests that all activities during a asynchronous meeting are recorded and logged and that links are provided for each activities conducted by objects; Toomey further teaches that links to documents produced by the activity conducted object can be provided also; this links allows other participant to access directly to a particular action (see Fig. 12 and col. 8 lines 36-67 through col. 9 lines 1-19, col. 12 lines 5-23). Thus, the combination of Toomey and Boulanger clearly suggests the limitation of saving a link to another object that conducts the detected activity event together.

♦ In response to Applicant's arguments that the combination of Toomey and Boulanger do not teach the limitation of a display device that specifies objects conducting the respective saved activity events, and displays a symbol representing each activity event and symbols representing the specified objects which conduct each activity events (e.g., see Applicant's remark page 12, Paragraph 2), the examiner respectfully disagrees and submits that the prior art of Toomey clearly suggests this limitation as set forth in claim 2 above. The prior art of Toomey further teaches that all activities are recorded for replay and that participants can share documents that they produced (e.g., see col. 12 lines 5-23 and col. 13 lines 5-18). Thus, combining Toomey and Boulanger would meet this limitation as set forth above.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TuyetLien (Lien) T. Tran whose telephone number is 571-270-1033. The examiner can normally be reached on Mon-Friday: 7:30 - 5:00 (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TuyetLien (Lien) T Tran/
Examiner, Art Unit 2179
2/15/08

/Weilun Lo/
Supervisory Patent Examiner, Art Unit 2179